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THE SCHOOL REVIEW

A JOURNAL OF SECONDARY EDUCATION

VOLUME XXI

JANUARY 1913

NUMBER 1

THE DUPLICATION OF SCHOOL WORK BY THE COLLEGE

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A generation or two ago the dividing line between the college and the secondary school was reasonably sharp and distinct. At present it is extremely ill defined and the indistinctness threatens daily to increase. Formerly the secondary school found almost its entire function in college-preparatory work and accordingly it covered only such ground as the college desired. Under this arrangement the college was naturally exempt from undertaking much of anything done by the school. Moreover, the materials of knowledge fit for presentation in the school were relatively limited, the curriculum was substantially inflexible and stereotyped, and as a consequence the problem of avoiding serious overlappings in the work of school and college hardly arose. The line between the collegiate and the secondary was determined primarily in terms of subject-matter rather than in terms of method, but it was well recognized and easily understood.

The wealth of subject-matter offered in a high-school curriculum today often hopelessly outruns any possibility of mastery by a given pupil within a four-year period and much therefore remains untouched which the student may possibly wish to attack at a later point in his career. The college has been willing in increasing degree to satisfy this demand and as a result we find a wide range of identical subjects taught in school and college. The mere fact

that the two varieties of institution offer the same work is not itself conclusive evidence of waste, but a careful study of the situation leads one to question whether the present practice is really defensible in all its aspects.

The situation is somewhat complicated by the fact that many high schools, no longer content to conclude their work with four years, are going on to add a fifth and even a sixth year, with the result that the college is finding its preserves encroached upon to a very marked degree. The time seems ripe for an inquiry into the present conditions and the writer herewith makes a beginning which he hopes to carry farther in the near future.

The question at once presents itself whether the college from the standpoint of its own purely selfish interests is employing its resources and energies wisely when it duplicates to any large extent the work of the high schools. In considering this issue, we may well remember that our colleges pursue two lines in their practice with regard to the school work which they duplicate. In the one case they do the seemingly obvious thing and after a student has covered certain ground in school he is permitted to proceed in college to the next more advanced stage of the same subject. Work in the modern languages may illustrate this case. But in the second instance, where the colleges offer work which is nominally identical with that done in the schools and entrance credit is given for the same, the student, when once he is safely inside the college walls, finds himself set to doing right over again much which he has already done in school.¹ This procedure is frequently justified on the ground that the work is carried on in college from a more mature and advanced point of view. Certain courses in science both physical and biological may illustrate this case upon which we may well comment for a moment.

It would be idle to deny that the content of a course in botany given during the second or third year of the high-school course might be presented to college Freshmen or to Sophomores in a more mature and scientifically substantial way. But where the colleges find it necessary to accept such work for entrance and then pro-

¹It is to be remembered that colleges sometimes refuse to recognize school work in any way, even for entrance. In such cases the requirement that the student begin anew is logically less peculiar.

ceed practically to disregard it and in large measure to repeat it, one can only feel that the educational system which permits or encourages such duplication lacks co-ordination, that its earlier and later stages are out of touch with one another, and that we have in such maladjustment a form of wastage which is unfair both to the student and to the teacher.

No doubt high-school science must always vary somewhat from college science, but it must surely be possible to have high-school and college teachers of these subjects reach such an agreement as to content and method as shall save us from the present costly form of duplication. Something is surely wrong when college students who have never pursued a given subject can carry it on in college upon entirely equal terms with other students who have made a nominal beginning upon it in school. Only in those instances where the work at issue had been undertaken very early in the school course and so had perhaps been forgotten, or had been necessarily presented in a very rudimentary way, could such a situation be justified. Nor could the justification be complete here, for it is doubtful whether the inclusion of any work in the school curriculum could be defended which was done in such a manner as to give the student who successfully mastered it no advantage over his colleague who might begin the same study three years later. If students were in these cases started once more at the beginning of a subject on the ground that a review is a valuable asset in intellectual development, the practice might be more enthusiastically approved. But although such review is an incident, it is neither the cause nor the real justification of the practice, as witness the presence in the same classes, and on nominally if not actually equal terms, of students who are taking up the subject for the first time.

A justification which one often hears urged for the procedure is that the teaching of certain subjects in the schools is so incompetent as to make it essential for the college to start its work from the beginning. No doubt in individual instances this might prove to be true, but as a general indictment it cannot be accepted. It would be just as applicable to one topic as to another if framed as a universal charge and we have already seen that the colleges accept and build upon a large amount of school work, however many

reservations they may entertain as to the efficiency of the high-school instruction.

The obvious moral of all this seems to be the need of intelligent collaboration between high-school and college authorities. It is surely futile to contend that high-school teaching is and must remain so uniformly bad that the college can be justified in systematically disregarding any work done in the secondary school. If there are subjects now given in the early years of the high-school course which cannot be properly given at that time, school and college teachers ought to work out the problem of the wise point at which such courses may be introduced. If the school is justified in giving its work in a way not exactly in parallel with the corresponding work of the college, then that fact ought to be clearly understood and the best possible adjustment worked out. At present the college is prone to judge the performance of the schools purely in terms of its own prepossessions and these may do justice to only a portion of the entire situation. The school, on the other hand, is likely to proceed on the basis of the individualistic bias of the teacher momentarily in charge of its courses. Substantial progress is only possible by means of a co-operation based upon a large and intelligent outlook upon the whole educational problem.

Reverting to our original question we may state it in general form thus: Is the modern college justified as a matter of general educational policy, a matter of the most judicious expenditure of its means, the most useful service to the community, in offering any considerable amount of work which the schools are prepared to give and which in actual fact they do give? Put in more specific form and from the pedagogical viewpoint as it would arise in connection with modern-language instruction for example, the problem may be formulated in this way: Is it not clear that for the college to continue to offer an unlimited quantity of beginning work is simply to encourage the indefinite maintenance of unwholesome educational tendencies in accordance with which the mastery of these subjects is postponed to a period when they are acquired with a maximum instead of a minimum of difficulty?

One is disposed to say that in view of the widening reach of the field of knowledge the college may with propriety undertake a cer-

tain amount of work obviously lying on the boundaries between the schools and the colleges, but that it should jealously examine every such invasion of school territory to make sure that by reason of it there is not encouraged and perpetuated the postponement to a late point in the curriculum of studies whose prime educational justification is to be found when introduced early. Furthermore, the college may well take thought when it discovers that any considerable fraction of its energy is going into work of this type. After all, the first duty of a college is to offer collegiate work and those who wish to continue secondary work indefinitely may properly be referred to secondary institutions. An education made up wholly of beginnings is a poor thing and the actual courses pursued by many of our college students display an amazing amount of such achievement.

There is no reason to suppose that the conditions in the University of Chicago vary materially in this particular from those characterizing other institutions of higher learning in the United States. Certainly the University has on more than one occasion and by more than one device attempted to protect itself from the disposition of many of its patrons to occupy an undue amount of their college life with elementary work. Despite this fact, an examination of the records of a large number of recent graduates indicates that fully one-third of their entire college course was given to work which could have been pursued in any one of our better high schools. The University requires for its degree that at least one-third of the work presented by a student shall be of the Senior College grade, that is to say: shall be work of an advanced character. Many students actually pursue considerably more such work, but it is perfectly clear that despite this fact a very large fraction of the studies taken are secondary rather than collegiate in kind, although they may be presented in a manner more mature and thoroughgoing than is usual in a school.

From the administrative point of view this means that a very large part of the instructional energy of the institution has gone into work of this type and that a very considerable amount of its resources has been drawn upon to support such instruction. Again it should be repeated that the conditions in this institution are as

regards this particular matter in no wise substantially different from those characterizing other American universities of the first class. Whether or not this very large reduplication by the college of work offered in the schools can be financially justified seems more than problematical. Certainly no one who has faced the facts directly can fail to agree that much still remains to be done by intelligent co-operation in minimizing this type of duplication. If the schools are able and ready to take charge of these courses, the college may well be willing to abandon many of them in order to contribute more of those things which no school is either able or ambitious to attempt.

If the discussion be transferred from such general issues as have been above touched upon and one comes, as one ultimately must, to an analysis of the specific details at issue, one is likely to feel that although the general line of advance is very obvious, progress on that line can be and ought to be much more rapidly achieved in connection with certain subjects than in connection with others. Thus in the case of the modern languages, so far as concerns the strictly educational aspects of the problem the writer does not chance to know anyone who demurs to the proposition that their study should be begun not later than the secondary-school period and if possible in the primary grades. This program of course involves their pursuit in large measure by means of the so-called natural method. But whatever divergence of opinion there may be concerning the proper method of studying these languages in college, the writer has never heard any serious objections to the plea for the natural method with young children. Educationally, psychologically, practically, it would represent a prodigious saving of time and energy if we could get these topics back into the elementary and secondary schools.

Moreover, it is very difficult to feel that the beginning of a modern language can be made in any very strict sense collegiate work. Something could surely be urged for discounting it as being on a lower level than certain other forms of college work. To get rid of the burden of teaching this rudimentary material to class after class of college students would be a boon which every college department of modern language would appreciate to the full.

The difficulty confronting us is therefore the practical one of disposing of the student who comes from the secondary school without his French and German. What can be done to induce the student to secure this work in school, to coax the school to offer it persuasively at an earlier age than at present? Can the college in fact afford to refuse such elementary instruction?

Evidently any one college attacking this problem alone and single handed would find its course beset with trials; but here, as in so many educational problems, co-operation is no idle dream, and what one alone might not accomplish, many working together can readily achieve. It is in the direction of concentrated action then that any large and reasonably prompt results are to be looked for. If the schools can be induced to introduce modern-language work in the grades and can be induced to keep such work vividly in the foreground in the secondary period, and if school and college teachers can be gotten together in a program of intelligent co-operation, we can expect to see the college rapidly lopping off a large part of the incubus of its elementary language work—work which it can do only at great disadvantage and which done on any terms is hardly collegiate.

The situation which confronts us in the organizing of our work in English is in many respects even more unsatisfactory than that peculiar to modern languages. In the case of English, however, as in the case of the sciences, referred to a little above, the main difficulty appears to attach to the reduplication of substantially identical work, rather than to the question of an undue deferment of work which should have been started in the school period. The history of the child who was confronted with the beauties of *Evangeline* at six different points in his school and college training is typical of the type of mal-co-ordination which still, to a considerable degree, characterizes the relations of our English instruction in the schools and the colleges. The colleges frankly offer elementary courses in English which traverse ground substantially identical with that covered in the schools. In certain cases the college permits students to proceed in their election of college work to courses which are nominally in advance of those pursued in the school. In other cases the student is held back and required to

repeat what is essentially the same work already asked of him by the school. Here again, as in the case of the sciences, the justification offered is generally either that the teaching in the school has been poor, or that the student has failed to profit by it sufficiently to justify allowing him to proceed to the next stage of advancement. Nevertheless, in this case as in that of the science work, the college is willing to accept this poorly done English as fulfilling part of the entrance requirements. This case appears to offer another instance of maladjustment which could presumably be removed by a sufficiently careful and intelligent co-operation between the authorities of the school and the college.

History offers an instance in some regards still more annoying to the student. The writer knows an institution in which one or two or even more units of history are accepted for entrance and nevertheless the student presenting them is required to go into the same elementary college classes with students who present no history at all. Here the actual and obvious repetition of considerable portions of the subject-matter renders it more difficult to justify the procedure to the student.

Political economy, civics, commercial geography, physiography, zoölogy, botany, physiology, to mention no other subjects, all present similar anomalies. The college accepts the high-school credentials in these topics as valid for entrance and then permits or requires the student to start at the beginning once again if he wishes to pursue these subjects in college.

The writer recognizes that colleges vary in their practice concerning these matters, but the conservatism of one institution at one point is likely to be offset by a corresponding leniency at some other, so that the sum total of the case is likely to be found substantially as the above statement would indicate.

Physics and chemistry represent a more advanced condition of intelligent co-operation between school and college than do most of the other sciences, a fact which in part indicates greater progress in the standardizing of elementary work in these subjects, and in part bespeaks a more successful facing by school and college teachers of the problem presented by the articulation of school and college work. Even in these sciences, however, nothing is more

common than to hear college teachers complain of the poor preparation of the students who reach them from the schools, and in some institutions special provision is made for classes which do not exactly repeat the elementary work done in the school, but nevertheless approach the subject in a manner somewhat different from that followed by the classes constituted of students beginning the work in college. Even here, then, there is still some room for further progress in the relations of the school and the college courses.

In the case of the biological sciences the difficulties presented are numerous and perplexing. The laboratory equipment of many schools renders it difficult to do satisfactory work in these subjects and they are quite often given during the early part of the high-school curriculum, so that their content is apt to be relatively very simple, in purpose at least, and by the end of the school course a considerable part of the information gained is likely to have been forgotten. Moreover, the exigencies of local conditions, to say nothing of the intrinsic wisdom of such procedure, often lead the teachers of so-called nature sciences to offer courses in which zoölogy and botany are blended in a way that makes it difficult for the college to regard the work as an adequate preparation for the college courses which commonly distinguish somewhat sharply between these two divisions of biological science. Moreover, some schools have attempted to give under the heading of biological science courses which include other scientific considerations than those peculiar to botany and zoölogy. For example, a certain amount of physiology and even physiography may be incorporated in such courses. When the college is reached and the differentiation of these subjects is encountered, it is obvious that the training offered by such a general preliminary course can hardly display the disciplinary results characteristic of the college elementary work in specialized fields. Here again, then, there is obvious need for much more detailed study by joint commissions of school and college teachers before we may hope to secure any really satisfactory adjustment of the biological work carried on by the two types of institutions.

The work in civics and in commercial geography presents in one way a simpler situation, for these topics are perhaps less likely to

be offered by the school in such fashion as to invade other outlying fields. On the other hand, they are apt to be presented at a rather early point in the school curriculum and thus to suffer from considerable immaturity in the form of presentation and are likely to be rather completely forgotten by the time the student has reached college.

Political economy, on the other hand, is likely to be given later in the course, and if the teachers of this subject are able to come to some agreement as to the proper content for such a course in the school and as to the wise methods for presenting it, there seems to be no reason why the most wasteful aspects of the present practice may not be overcome. It is not uncommon at present for colleges to offer the work in political economy under such conditions that students ordinarily come to it in the Sophomore or Junior year. It is clear that so long as this practice continues it is to be expected that the content of the beginning courses in school and college should show considerable disparities, and in proportion as these are large and fundamental, the objection drops out against allowing or requiring students to pursue these elementary courses in college, even though they may have had some previous high-school work under the same title.

One thing emerges from our discussion with entire clearness, to wit, the practices at present in vogue result in a wholly needless waste of the students' time, much of which could presumably be avoided by intelligent collaboration of school and college teachers. It also appears to be reasonably certain that the college could employ to better advantage for all concerned some of its resources which are now devoted to teaching subjects that can unquestionably be best presented in the high school. How to bring about the changes necessary to secure the desired results remains to be determined.